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A Study in Foods For Home Demonstration Clubs

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INTRODUCTION

The Division of Home Demonstration work has felt the need of son elementary text on the care and preparation of food to be used in carr ing out its program with the girls and women of the State, and to th end the following program of work has been outlined by Mrs. Cornel C. Morris, Tidewater District Agent.

The purpose of this bulletin is to set before the club members an such rural teachers as may desire to fit themselves to help the gir under their charge in proper methods of preparing and caring for foo in giving a knowledge of its use in the body, and in teaching the valu of a properly balanced meal for the family.

This bulletin purposes, also, to demonstrate the value of home co veniences and a properly arranged kitchen, and stresses the necessit for sanitation and a convenient water supply in the home.

The main food groups and the process of cookery are discussed wit specific reference to elementary work both in the home and in the rur school.

The Home Demonstration Agent is asked to use this outline in he yearly program of work as she thinks best. If only a part of her pr gram can be given to foods, the course suggested may be stretched ov two or more years.

Many references are made in the outline to certain Government c State bulletins that treat the subject more fully than could be done i a pamphlet of this kind. State bulletins may be had from the Agricu tural Experiment Station, the Agricultural Extension Service and th State Department of Agriculture, Raleigh, N. C. Government bulletin may be had from the United States Department of Agriculture Washington, D. C.

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A Study in Foods For Home Demonstration Clubs

By Mrs. Cornelia C. Morris, *District Agent, Division of Home Demonstration Work.*

VALUE OF HOME ECONOMICS IN HOME-MAKING

It has been said that "When one's knowledge of a subject has passed e stage of drudgery and becomes a science its performance immedi-ely becomes a pleasure. The ability to do a thing, in the highest own perfection, is always a source of delight, and it matters little at that something is."

One of the first essentials in successful home-making is proper train-g in Home Economics. Home-making is a many-sided business, and is study lays the foundation for the housewife to build upon.

On her depends the comfort and happiness of the home. She plans e building, chooses the furnishings and equipment, buys and makes e clothing, selects and prepares the food, looks after the health of e family, beautifies the premises, and is responsible for the expendi-re of about three-fourths of the family income. To make a success this combination of varied tasks it will be necessary for the house-eeper to plan the business of her home with system and to select tools d equipment which will eliminate drudgery and leave time for recre-ion and pleasure.

AIR AND VENTILATION

Fresh air and sunshine are necessary in promoting the health of the mily. The proper ventilation of the cellar is of prime importance, a large amount of this air finds its way to the rooms above. Sleeping oms should have a good cross-ventilation and the living room should all times have a circulation of pure fresh air. Light airy store rooms d pantries will do much to prevent moths, mold and decay.

SWEEPING AND DUSTING

In sweeping, take short even strokes, holding the broom close to the or. Sweep from the sides toward the center of the room. Collect st in a dust-pan and burn immediately.

A piece of soft cheese-cloth makes a good dust cloth. The object in sting is to remove the dust and not to scatter it. Shake cloth fre-ently out of doors and wash after using. Use a little household mmonia in place of soap, in the water, when washing windows.

CARE OF THE PREMISES

The grounds surrounding the home should be well drained with o stagnant pools to breed mosquitoes. Trees and shrubbery should be o placed that an abundant supply of fresh air and sunshine will be ava- able to all parts of the house.

Garbage should be disposed of promptly and unslacked lime shou be freely used in damp or shady places.

Where there is stock, manure bins should be used. Fly-traps shou be placed near all out-buildings and outside the kitchen door. The w should be located as far from sources of contamination as possib Impure water is the cause of typhoid fever, dysentery and other int tinal diseases.

Last, but not least, beautify the premises with native shrubs, a f flowers, and a well-kept lawn.

PERSONAL CLEANLINESS

Personal cleanliness is a vital matter, and as most personal hab are formed before the age of 20 or 25, we should impress on the you the value of the daily bath, and train them to care properly for e teeth, nails and hair.

Underclothing should be changed at least once a day. Washa dresses are preferable for housework. When cooking or handling fo an apron should be worn and the hair carefully covered with cap or n

If it becomes necessary to use a handkerchief, the hands should washed before proceeding with the work.

A generous supply of both hand and dish towels should be conv iently near. Holders made of heavy denim are necessary when handli cooking vessels.

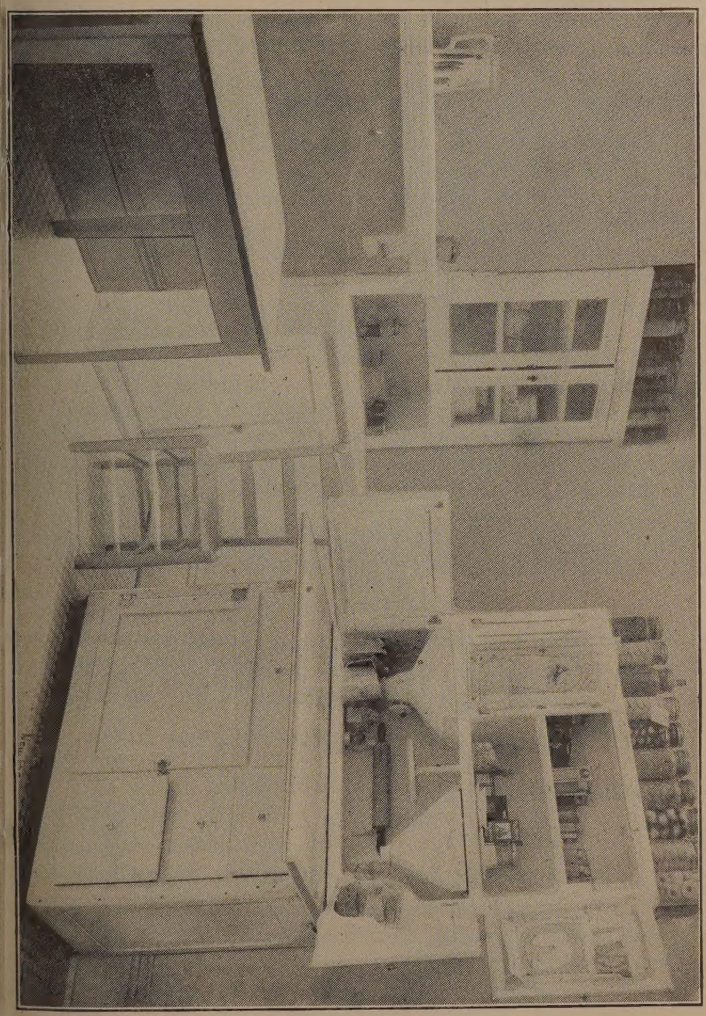
THE KITCHEN

The kitchen should have good cross-ventilation to dispose of cooki odors. Painted walls that may be wiped off with a damp cloth are be and unless hardwood can be afforded for the floor, good linoleum, pr erly laid, will prove to be the most satisfactory finish. If linoleum washed and the pores filled with wax paste, it will last indefinite These floors are easily cared for and are clean and sanitary.

The color scheme of the kitchen will depend entirely on the exposu If the kitchen is a sunny room, blue or gray, with white, will be c and restful. A northern exposure will require a warm yellow.

Dark cheerless walls take all of the joy out of housework. The kitch is a woman's workshop and should be cheerful and bright with go furnishings and equipment. A cabinet, where she can sit comfortab with supplies within easy reach, is a great step-saver. The sink shou be 34 or 35 inches from the floor. Whatever fuel is used, the ran should be the best on the market. A small oil stove in addition to t range will make summer cooking less fatiguing. A fireless cooker is

essity throughout the year. Cabinet, cooker, wheel-tray and many er labor-savers can be made at home with the assistance of a car-



nter. Too many utensils clutter up a kitchen and make additional ork. Try and have only the necessary tools and have them of good ality. Sharp knives, a food chopper, mixing bowls, a corkscrew, can- ener and other devices save time and temper. Aluminum cooking

vessels last a lifetime if cared for properly. For baking, the new gl:-ware is excellent. The storage closet should be ventilated. The shel:s and walls should be painted.

A comfortable chair with magazines conveniently near will be restl during spare moments. Plan work at least a day in advance and avd monotony in the menu.

FOOD

In order to understand food and its relation to the body it is nec-sary to study something of the composition of food.

As our bodies are composed of different elements uniting to fo different substances, bone, flesh, muscle, hair, teeth, skin, etc., so a are the foods that are used in the building up of these bodies compo of different elements.

The chief elements which enter into our food products are carb oxygen, and hydrogen from the air, and water; nitrogen from the r through plants; calcium, phosphorus, sulphur and potash from the r and soil through vegetables.

These elements unite in different proportions to form our foods, a for convenience we have named some of the combinations, and we f that food consists of five compounds: (1) Proteids; (2) Fats; (3) C-bohydrates; (4) Mineral matter; (5) Water.

(a) Organic Food

(1) *Proteids*—composed of:

- Nitrogen
- Carbon
- Oxygen
- Hydrogen
- Sulphur
- Phosphorous

→

- White of eggs, *i. e.*, albume
- Curd of milk, *i. e.*, casein.
- Legumen of peas and bean
- Lean of meat, myosin.
- Gluten of wheat.

(2) *Carbohydrates*

- Sugar → Cane, beet and others.
- Starch → Cereals, Most vegetabl Macaroni, Tapioca, etc.

(3) *Fats*

- Fats of mea
- Butter.
- Olive oil.
- Lard.

(b) Inorganic

(1) *Mineral Matter*

- Phosphate of lime.
- Potassium and sodium salts, et

(2) *Water* (H^2O).

FOOD ADJUNCTS

'ood adjuncts are not classed with the food principles, but are of ortance because they stimulate the appetite by adding flavor to the

FIG. 2—PREPARING A SCHOOL LUNCH

. In some cases they aid digestion by exciting the flow of the diges- juices. Among the food adjuncts are spices, flavoring substances, t acids and the mild stimulants found in tea, coffee, etc.

USES OF DIFFERENT FOODS

1) *Proteids.*—Build tissue and yield heat and energy.
2) *Carbohydrates.*—Give heat and energy.
3) *Fats.*—Give heat and energy.
4) *Mineral Matter.*—Builds bone and aids digestion.
5) *Water.*—(1) Carries nourishment to different parts of the body removes waste. (2) It helps to form a part of the tissues, making it two-thirds the body weight. (3) It moistens the different tissues. It helps to regulate the temperature of the body.

Composition of Some Common Foods

	Refuse	Water	Protein	Fat	Carbohydrates	Ash	Fuel Value Per
	Per ct.	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	
Beef, round	7.2	60.7	19.0	12.8	.....	1.0	[illegible]
Beef, sirloin	12.8	50.0	16.5	16.1	.....	.9	[illegible]
Mutton, flank	9.9	39.0	13.8	36.9	.....	.6	1,[illegible]
Cod	29.9	58.5	11.1	.2	.....	.8	[illegible]
Oysters	.....	88.3	6.0	1.3	3.3	1.1	[illegible]
Whole milk	.....	87.0	3.3	4.0	5.0	.7	[illegible]
Butter	.....	11.0	1.0	85.0	.....	3.0	3,[illegible]
Cheese, cheddar	.....	27.4	27.7	36.8	4.1	4.0	2,[illegible]
Cheese, full cream	.....	34.2	25.9	33.7	2.4	3.8	1,[illegible]
Entire wheat flour	.....	11.4	13.8	1.9	71.9	1.0	1,[illegible]
Corn meal	.....	12.5	9.2	1.9	75.4	1.0	1,[illegible]
Oat breakfast food	.....	7.7	16.7	7.3	66.2	2.1	1,[illegible]
White bread	.....	35.3	9.2	1.3	53.1	1.1	1,[illegible]
Rice	.....	12.3	8.0	.3	79.0	.4	1,[illegible]
Sugar, granulated	.....	.....	.....	.....	100.0	.....	1,[illegible]
Beans, dried	.....	12.6	22.5	1.8	59.6	3.5	1,[illegible]
Potatoes	20.0	62.6	1.8	.1	14.7	.8	[illegible]
Eggs	11.2	65.5	13.1	9.3	.....	.9	[illegible]

Adapted from Bulletin No. 142, U. S. Dept. of Agriculture.

Two pounds of solid food and three pints of water is about the amou required each day for the body of an adult.

Food that is used by the body is either tissue-building or heat-p ducing. The proteins largely include the first class, the carbohydra and fats the latter. The fuel value of food is measured in calories, heat in the body or atmosphere is measured by degrees.

CALORIES

A calorie is the common measure for the heat-producing property foods. It is the amount of heat required to raise the temperature one pound of water 4 degrees F.

Thus we speak of potatoes having a fuel value of 295 calories p pound. The following table gives the fuel value of most of our comm foods. From a careful study of both, it will be seen that careful pla ning of the bill of fare is important both winter and summer. F example: oatmeal contains about 92 per cent of food properties and h a fuel value of 1,800 calories per pound; whole rice contains 87 p cent of food properties and has a fuel value of 1,620 calories per pou and should be preferred for a summer food.

Fuel Value of One Pound of Food

	Calories		*Calories*
ef, round	890	Potatoes	295
ef, sirloin	975	Beans, dried	1,520
tton	1,770	Rice	1,620
l	220	Cornmeal	1,635
ster	225	Oatmeal	1,800
lk	310	Wheat flour	1,650
tter	3,410	Wheat bread	1,200
eese	2,075	Sugar	1,750
eese, full cream	1,885		

Table of Abbreviations

Tsp. or t.—*Teaspoonful.*
Tbsp. or T.—*Tablespoonful.*
Ssp.—*Saltspoonful.*
C.—*Cupful.*
M.—*Minute.*
Qt.—*Quart.*
Pt.—*Pint.*
Oz.—*Ounce.*
Lb.—*Pound.*
H.—*Hour.*

Accurate measurements are necessary to success in cooking. The ndard measuring cup holds one-half pint. All measurements given these recipes should be leveled off with a knife. All dry materials uld be sifted before measuring, and never packed into a cup but put lightly. Half a spoonful is measured by dividing in halves length-se.

Table of Weights and Measures

4 ssp.—1 t.
3 t.—1 T.
4 T.—¼ c.
8 oz.—1 c.
2 gills—1 c.
2 c.—1 pt.
2 pts.—1 qt.
4 qts.—1 gal.
4 c. flour—1 lb.
2 c. solid butter—1 lb.
3 c. meal—1 lb.
2 c. granulated sugar—1 lb.

DISH WASHING

Collect dishes, scrape and pile all of a kind together. Have dishpan lf full of hot, soapy water. Use soap-shaker and dish-mop. Wash ass, silver, cups and saucers, plates, larger dishes, tins and cooking ensils in order given. Rinse in clear hot water, wipe with clean, dry wels and put them in their proper places, handling them as little as ssible. Wipe greasy dishes with paper before washing and burn the per.

CARE OF THE REFRIGERATOR

Wash the refrigerator several times a week with a solution of washing da, and flush the pipes with the same. Wipe as dry as possible and ave open until thoroughly dry.

TABLE SETTING AND SERVICE

Care of the Dining-room.—See that the dining-room is well aired ar in perfect order before the meal.

Setting of the Table.—1. Lay a felt cloth or one of canton flannel c the table. 2. Put on the tablecloth with the folds straight and eve being careful that the part which hangs over is equal at each end. Consider the number to sit down and divide off the space so that th distance between the plates may be equal. At the right of the pla place the knives, soup spoon and oyster fork, if oysters are serve Arrange in the order of courses. Just above the knife place the tumble At the left of the plate place the fork, then the napkin, and above th napkin the bread and butter, or butter plate. The tines of the fork should be up, also the bowls of the spoons. The knives should be turne with the sharp edge toward the plate. Have a bowl of fruit or a fe flowers in the center of the table.

For breakfast place the coffee pot, sugar bowl, cream pitcher, cu and saucers in a semi-circle in front of the hostess. The host serv the main dish.

Serving.—Dishes on which hot foods are to be served should be ho Pass everything to the left when a person is to help himself, holding th tray firmly, and low, near enough that the dish may be within eas reach. When setting a thing down before a person go to the right, in the case of soup, coffee, etc. In filling a tumbler, take it near th bottom, draw to the edge of the table, and fill three-fourths full. Whe ready for dessert, remove individual dishes first, then meat platter an all dishes holding food. Take off salt, pepper, and all dishes not nece sary for the next course, then brush the crumbs from the tablecloth.

METHODS OF COOKING

1. *Boiling.*—Cooking in water at a boiling temperature, 212 degre Fahrenheit (F).

2. *Stewing.*—Cooking in water below the boiling point, 160-198 d grees (F).

3. *Frying.*—Cooking in deep fat (cooked foods require more heat an less time for frying than uncooked). Have enough fat to cover or flo the article.

4. *Sautéing.*—Cooking in a small amount of fat, commonly calle frying.

5. *Broiling.*—Cooking over hot coals, or under a gas flame, or in hot pan. Sear the surface and then cook more slowly. This preserv all of the juices and flavors of the meat. Never pound steak befo broiling it.

6. *Roasting.*—Cooking meat by surrounding the whole surface wit heat.

BEVERAGES

Thirst is the natural craving of the body for water, hence water is the best beverage, other beverages are valued for their stimulating or nourishing qualities, as well as their refreshing property.

Water.—Good drinking water is clear, colorless and almost tasteless. If there is any doubt as to its purity, it should be boiled ten or twenty minutes to kill the germs.

Tea.—The best black tea comes from India and Ceylon. Some familiar brands are Oolong, Formosa, English Breakfast, Orange Pekoe, and Flowery Pekoe. The best green tea comes from Japan. Some familiar brands are Hyson, Japan, and Gunpowder. The stimulating property of tea is due to the alkaloid, theine, together with an essential oil; it contains an astringent, tannin. Tea should always be infused, never boiled. Long steeping destroys the delicate flavor by developing large amount of tannic acid.

Coffee.—The best coffee is composed of two parts of Java to one part Mocha. The stimulating property of coffee is due to the alkaloid caffeine, together with an essential oil. Like tea, it contains an astringent tannin which is developed by long cooking. Coffee is often adulterated with chickory and other seeds. If this is done it may be quickly detected by a coloring of the water and sinking of the grounds when a little put in a glass of water.

CHOCOLATE

Chocolate and cocoa are prepared from the seed of the cacao tree. They are nourishing drinks and especially desirable for growing children. Theo-bromine, the active principle, is almost identical with theine and caffeine in its composition and effects.

Boiled Coffee

4 T. coffee 1 pt. boiling water ¼ egg, white

Scald coffee pot. Mix the egg and coffee with 2 tablespoonfuls of cold water. Put this into pot and pour on freshly boiled water. Boil 3 minutes. Pour a little coffee from the spout to remove grounds and pour back into pot, adding ½ cup cold water to settle the grounds that may be floating in the coffee. Egg-shells may be used instead of eggs to clarify coffee.

Tea

2 tsp. tea 1 pt. boiling water

Scald teapot, put in tea and pour on freshly boiled water. Steep 3 minutes.

Russian Tea

Put a slice of lemon in each cup and pour in hot tea.

Iced Tea

Pour hot tea into a vessel, add 2 tablespoonfuls of sugar. Cool with ice a add lemon. If the hot tea is poured on ice the flavor is better.

Chocolate

1 oz. chocolate
3 T. sugar
2 cups scalded milk
1 cup boiling water
½ t. flavoring

Melt the chocolate, stir in water a little at the time. Add sugar and coo minutes. Pour into a double boiler with scalded milk. Add flavoring (vanill beat and serve.

Punch for One Hundred

3 doz. lemons
1 doz. oranges.
2 cans grated pineapple
1 can red cherries
1 can white cherries
1 pt. Maraschino cherries
1 can raspberries
2 qts. carbonated water
1 qt. ginger ale
8 lbs. sugar
1 cup tea leaves
2 gals. boiling water.

Steep tea in boiling water 3 minutes; pour over sugar and stir until d solved. Add fruit juices and fruit. Cool quickly by pouring over ice. Wh ready to serve, add carbonated water and ginger ale.

Iced Tea Punch

1 qt. tea
1 can chunk pineapple
6 lemons
2 cups sugar
1 qt. carbonated water

Mix lemon juice, sugar, and pineapple with cold tea. When ready to ser add 2 pounds of ice (shaved fine) and the carbonated water. Cherries, stra berries, raspberries and oranges may be used in this punch.

SOUPS

Soups may be divided into two classes: those with stock and tho without stock. Those with stock have meat as a basis; those witho stock are made of vegetables, fish and milk. Cream soups, or tho without stock, are quickly prepared, are palatable and nutritious, a with bread and butter furnish a satisfactory meal.

For all cream soups, allow ½ to 1½ tablespoonfuls of flour to o pint of liquid. The liquid consists of milk and the water in which t vegetables were cooked. About twice as much milk should be used vegetable pulp.

Cream soups should be thickened slightly or "bound," otherwise the will separate. To bind them, soften the butter, add an equal quantit of flour, rubbing the mixture to a cream. Add this to the soup. Coo 5 minutes or longer, stirring constantly.

Tomato Bisque

1 can tomatoes
¼ t. soda
2 t. salt
1 qt. milk
⅛ t. pepper
3 T. butter
4 T. flour

Stew tomatoes until soft enough to strain; heat milk in double boiler; rub ter and flour together; add to hot milk and stir until smooth; cook 10 min- s; add seasoning and strained tomatoes to which soda has been added; ve at once. (The soda prevents the acid in the tomatoes from curdling the lk.)

Potato Soup

3 potatoes	1½ t. salt
1 qt. milk	¼ t. celery salt
3 slices onion	⅛ t. pepper
3 T. butter	1 t. chopped parsley
2 T. flour	

Cook potatoes in boiling salted water; when soft, rub through a strainer. dd milk with onion, remove onion and add milk slowly to potatoes. Melt lf the butter, add dry ingredients, stir until well mixed, then stir into boil- g soup. Cook 1 minute, strain, add remaining butter and sprinkle with rsley.

Cream of Green Peas

1 pt. peas	Half small onion, sliced
2 c. water	2 T. butter
1 t. sugar	2 T. flour
1 t. salt	Pinch of white pepper
2 c. milk, scalded	

Wash the peas if fresh, and drain if canned; cook peas, onion, sugar and ter together until the peas are very soft. Wash the peas in the water in ich they were boiled, and strain. Melt the butter, add the flour, stir well, d add a portion of the strained liquid. Boil 3 minutes, stirring constantly. ld the remainder of the strained liquid, thin with hot milk, and add salt and pper. Reheat to the boiling point and serve.

Asparagus, celery and other vegetables may be used in a similar manner for ups.

CLEAR SOUPS

Soups with stock have, for their basis, beef, veal, mutton, fish, poultry, game, separately or in combination. They are classified as:

Bouillon, made from lean beef, delicately seasoned and usually eared. Exception, clam bouillon.

Brown soup stock, made from beef two-thirds lean meat, and re- ainder lean and fat highly seasoned with vegetables, spices, and sweet rbs.

White soup stock, made from chicken or veal, with delicate season- gs.

Consommé, usually made from two or three kinds of meat, beef, veal, nd fowl, being employed, highly seasoned with vegetables, spices, and veet herbs. Always served clear.

Lamb stock, delicately seasoned, is served as mutton broth.

CEREALS

Cereals are valued chiefly for the large amount of starch which they ontain, and for a small amount of protein. If thoroughly cooked, they

are very nutritious. They contain but little water; hence several tim their bulk of water should be used in cooking. Long thorough cookin is necessary to render the starch easy of digestion. Cereals should l thoroughly masticated as the digestion of starch begins in the mouth.

GENERAL RULES FOR COOKING CEREALS

Have salted water boiling rapidly, using about one teaspoonful of sa to each quart of water. Cook longer than directions call for.

Oatmeal in Fireless Cooker

6 c. water 2 t. salt 2 c. oatmeal

Add oatmel gradually to boiling salted water; cook rapidly for 10 minute stirring constantly. Place in fireless cooker overnight. Reheat by placin cooker pan in a pan of hot water over the fire.

Apple and Cereal

3 apples
2 c. cooked cereal
2 tbsp. sugar
1 c. water

Make a sirup of the water and sugar. Pare and core the apples and coo until tender in the sirup. Put a spoonful of cereal into a cup; set an app on this and fill the cup with more of the cereal; chill and turn out. Serv with the fruit juice or with cream and sugar.

Fried Hominy

½ c. flour
⅛ t. salt
8 slices cold cooked hominy
1 egg
¼ c. sweet milk
4 slices bacon

Make a batter of the flour, egg and milk; add the salt, and dip the homin into the mixture. Fry the bacon crisp and brown the hominy in the fat.

Spoon Bread

2 c. cold cooked hominy
2 T. butter
2 eggs
½ t. salt
½ c. cornmeal
1 t. baking powder
2 c. sweet milk

Scald meal in the milk; beat the eggs and add them to the salt and hominy Cool milk slightly and combine mixtures. Bake in a buttered pudding dish Bacon fat may be used instead of butter.

POTATOES

Potatoes are about three-fourths water, the solid part being largely starch, with a small amount of protein and mineral salts. They contain a bitter juice which is drawn out in cooking.

Cooking swells and softens the starch, and thereby causes the breaking of the cell walls. When this is done the digestive juices can act upon the starch more easily.

Potatoes are valued chiefly for the starch which they contain, but are
bulky to give sufficient nourishment unless served with some proteid
od.

FIG. 3—PREPARING A DINNER IN A FIRELESS COOKER

Boiled Potatoes

Wash, scrub, and pare potatoes and put in cold water. Drop in boiling
ted water and cook until tender (about 30 minutes). Drain off every drop
water and put uncovered on back of stove, shaking gently to make them as
aly as possible and allow steam to escape.

Mashed Potatoes

Mash potatoes in the kettle in which they were boiled, using a wire masher.
1 pint of potatoes add 1 tablespoonful butter, one-half teaspoonful salt, a
tle pepper and hot milk to moisten. Beat until creamy and free from lumps.
e lightly in a hot dish and serve.

Shadow Potatoes

Wash and pare potatoes. Slice thinly (using vegetable slicer) into a bowl
cold water. Let stand 2 hours, changing water twice. Drain, plunge into
kettle of boiling water and boil one minute. Drain again, cover with cold
ter. Take from water and dry between towels. Fry in deep fat until light
own, keeping in motion with a skimmer. Drain on brown paper and sprinkle
th salt.

French Fried Potatoes

Wash and pare potatoes, cut in eighths lengthwise and soak one hour in cold
ter. Take from water, dry between towels and fry in deep fat. Drain on
own paper and sprinkle with salt.
Care must be taken that fat is not too hot as potatoes must be cooked as
ll as browned.

Stuffed Potatoes

Bake the potatoes on the rack of the oven. Cut them into halves and remo the inside, keeping the skins in shape. Prepare as for mashed potatoes; re the skins and bake till a delicate brown. Grated cheese may be added.

Candied Yams

4 medium potatoes
1 c. sugar
½ tsp. cinnamon
2 c. water
3 tbsp. butter

Pare the potatoes and cut into slices one-fourth of an inch thick. Arran in a baking dish and pour over them the water, in which has been mixed t butter, sugar and cinnamon. Bake slowly for a long time till the water absorbed and the potatoes are brown. Cold boiled potatoes may be used, which case decrease the amount of water.

SUGAR

Sugar is a valuable fuel food and energy producer. It is pleasi to the taste and relieves fatigue.

Source of Sugar.—Cane, beet, fruit, milk, etc. In the manufactu of cane sugar, the cane is crushed and the sap is boiled in large copp kettles. When this is done a part crystallizes; this is raw sugar; t part that does not crystallize is molasses. Raw sugar is refined by d solving it in boiling water and adding a little lime to neutralize t acid. It is then strained through flannel and filtered through bone-bla to remove impurities. This product is then boiled in vacuum pans to thick sirup. It is next put in a machine, where rapidly revolvi cylinders throw out the uncrystallized part, leaving the white crysta which we know as granulated sugar.

The following temperatures will be helpful in cooking sugar:

Small thread	215° F.
Large thread	217° F.
Soft ball	238° F.
Hard ball	248° F.
Caramel	350° F.

Cocoanut Bar

4 c. sugar
1 c. water
½ c. grated cocoanut
1 tsp. flavoring
½ tsp. cream of tartar

Dissolve the sugar and cream of tartar in water. Cook without stirri until a soft ball will form when tried in cold water. Remove from fire a cool until the hand can be held on outside of saucepan, then beat until thickens. Add cocoatnut and flavoring; pour into buttered pans, cool, a cut into bars or squares.

Peanut Brittle

Use equal parts granulated sugar and chopped peanuts. Melt the sugar in shallow pan; when it becomes a clear golden brown sirup, add the nuts and on the bottom of an inverted pan; press into shape with two knives, crease and put away to harden.

Oatmeal Cookies

¾ c. shortening	1 tsp. cinnamon
1 c. sugar	½ tsp. salt
2 eggs	2 c. flour
4 tbsp. milk	2 c. dry rolled oats
¾ tsp. soda	1 c. chopped raisins (or more)

Sift salt, soda and spice with the flour; mix in the order given; drop by teaspoonfuls on a buttered pan and bake.

MILK

Milk is considered to be a perfect food as it contains all the essential elements for normal growth and development. If used as the sole food it will sustain life and allow growth, but for many reasons a mixed diet is better than an exclusive milk diet, after infancy.

Milk contains an abundance of substances known as vitamines or growth determinants which control growth and health.

The cream of a quart of milk contains as much of this vital substance as is found in all the skim milk left after the cream is removed. Skim milk, however, is a valuable tissue-builder.

Milk should be cooled as soon as possible after milking and should be kept in a cool place in covered vessels.

Pasteurized Milk

Set the bottle containing the milk on a rack in a vessel large enough to permit the cover to fit well down over the vessel. Pour into the vessel enough water to cover the rack just below the bottles. Put on the pot cover and let the water simmer 20 minutes. The temperature should not be more than 170° F. Cool as quickly as possible and do not uncork the bottles till ready to use the milk.

White Sauce

No.	*Milk*	*Flour*	*Butter*	*Salt*
1	2 cups	1 tablespoon	1 tablespoon	½ teaspoon
2	2 cups	2 tablespoons	2 tablespoons	½ teaspoon
3	2 cups	3 tablespoons	3 tablespoons	½ teaspoon
4	2 cups	4 tablespoons	4 tablespoons	½ teaspoon
5	2 cups	5 tablespoons	5 tablespoons	½ teaspoon
6	2 cups	6 tablespoons	6 tablespoons	½ teaspoon

Melt the butter in a saucepan and stir in the flour. Scald the milk and pour it slowly into the butter and flour mixture. Stir constantly, cooking till both.

White sauce is the foundation for all cream soups, gravies and sauces.

Boiled Custard

1 qt. sweet milk
1 c. sugar
4 eggs
2 t. flavoring
⅛ t. salt

Scald the milk, beat the yolks and sugar; pour the scalded milk into h eggs and sugar, beating all the time; turn the mixture back into the do boiler and cook till the mixture coats the spoon; remove from the fire, c slightly, and mix in the beaten whites of the eggs; add salt, cool and fla This custard may be frozen for ice cream. The addition of 1 pint of cr makes a richer dish.

Cup Custard

Instead of turning the custard mixture into a double boiler, pour it cups and dust over with nutmeg. Set the cups in a pan of hot water bake in a slow oven till set.

Creamed Asparagus on Toast

Cook asparagus until tender in boiling, salted water. Arrange slices of toast on chop dish; lay asparagus on toast and cover with white sauce; garnish with parsley.

Creamed Green Peas

Reheat canned peas in white sauce. Serve in Swedish timbales.

Creamed Sweetbreads

Place sweetbreads in boiling, salted, acidulated water; simmer on back of stove 20 minutes. Remove membrane, cut in small pieces; reheat in white sauce. Serve on toasted crackers, toast or in timbales.

Creamed Oysters

Clean oysters and simmer until gills curl. Drain, cover with white sauce highly seasoned.

Pimento and Cottage Cheese Roast

2 c. of cooked lima beans
3 canned pimentoes, chopped, salt
¼ lb. cottage cheese
Bread crumbs

Put the first three ingredients through a meat chopper. Mix thoroughly and add bread crumbs until it is stiff enough to form into a roll. Brown in the oven, basting occasionally with butter or other fat and water.

Cottage Cheese Balls

Make small balls of cottage cheese; roll in chopped nuts; cover with salad dressing and serve on lettuce leaves.

EGGS

White of egg contains albumen in its purest form. Albumen coagulates at a temperature of from 136°F-160°F. Hence eggs should be cooked at a very low temperature. Eggs perfectly cooked should be placed and kept at a temperature of 175°F. Boiling renders the albumen tough and indigestible. Eggs are a highly concentrated food, and should be used in combination with carbohydrate foods.

Being deficient in starch they are usually served with bread in some form.

Eggs are preserved by: (1) Keeping in cold storage; (2) packing in salt; (3) putting in lime water; (4) preserved in water glass (sodium silicate).

Creamed Eggs

3 hard cooked eggs	½ t. salt
1 T. butter	⅛ t. pepper
1 T. flour	5 slices toast
1 c. milk	Parsley

Make a thin white sauce with butter, flour, milk and seasonings. Separate yolks from whites of eggs. Chop whites finely and add them to the sauce. Cut four slices of toast in halves lengthwise. Arrange on platter and pour over the sauce. Force the yolks through a potato ricer or strainer, sprinkling over the top. Garnish with parsley and remaining toast, cut in points.

Soft Cooked Eggs

Have a saucepan nearly full of boiling water. Add eggs, carefully; cover and set on back of stove where the water cannot boil. For very soft cooked eggs let stand 5 minutes; medium, 8 to 10 minutes.

Hard Cooked Eggs

Follow above directions, letting eggs stand 30 minutes, being careful to keep water just below the boiling point.

METHODS OF COMBINING MIXTURES IN QUICK BREADS

Quick breads are those that are made light without the use of yeast, as biscuits, muffins, waffles, etc.

Dough is stiff enough to be handled. Batter contains more liquid and should be beaten.

(*a*) *Stirring.*—Move the spoon steadily in a widening circle.

(*b*) *Beating.*—Tip the bowl slightly and with a spoon carry it swiftly through the material so that air is taken in with each stroke.

(*c*) *Folding.*—Put the spoon in edgewise; lift the ingredients and turn them over; repeat until thoroughly mixed. Never stir after folding.

Pour Batters.—Mixtures of about equal parts flour and liquid, s popovers and pancakes.

Drop Batters.—Mixtures of about two parts flour to one of liqu as muffins and cakes.

Soft Dough.—Mixtures of about three parts flour to one of liquid, s biscuits.

Stiff Dough.—Mixtures of about four parts flour to one of liquid, s yeast bread.

BAKING POWDER

There are three kinds of baking powder—cream of tartar, acid pho phate, and alum. Baking powder is a combination of some one of the acids with bicarbonate of soda. A little starch is added to keep t mixture dry. Cream of tartar is obtained from crystals deposited the inside of wine casks. These crystals are called argols or cru cream of tartar. When purified and ground, the pure white powder obtained. Soda is obtained from common salt.

Effect of the heat of the oven upon baking powder mixture:

(*a*) As the ingredients become heated the acid in the baking powd acts more readily upon the soda, and the gas forms rapidly, filling t batter with little bubbles.

(*b*) The heat now causes these gas bubbles to increase in size.

(*c*) The moisture is partially changed to steam, and this also hel to lift up the dough or batter.

(*d*) The heat of the oven now hardens the walls of the bubbles, a keeps them from breaking.

Baking Powder Biscuit

2 c. flour
4 t. baking powder
1 t. salt
2 T. lard
¾ c. milk

Mix dry ingredients and sift twice; work in lard with tips of fingers; a gradually the liquid, mixing with knife or spoon to a soft dough. Place floured board, pat and roll lightly to one-half inch in thickness; cut out a bake in hot oven.

Buttermilk Biscuits

2 c. flour
1 t. salt
½ to ⅔ c. buttermilk
¼ t. soda
3 T. shortening
1 t. baking powder

Mix as in Baking Powder Biscuit.

Waffles

2 c. flour
3 t. baking powder
½ t. salt
2 eggs
1½ c. milk
1 T. melted butter

Mix in order given, adding beaten yolks with milk, then the butter, and fo in the beaten whites last.

Flour Batter Cakes

Use the same recipe as Waffles.

Corn Meal Muffins

1½ c. corn meal	½ c. flour
1 t. salt	1½ c. buttermilk
½ to 1 t. soda	1 egg
2 T. lard	

Beat egg, add milk and salt. Sift the flour and meal together, then stir into the liquid. Pour in the melted lard and add soda mixed with 2 tablespoons of water. Pour into a hissing hot greased pan and bake in a hot oven.

Sour Milk Griddle Cake

2 c. flour	1 t. soda
½ t. salt	1¾ c. sour milk
2 eggs	

Mix and sift salt, soda and flour. Add sour milk and beaten yolks. Fold the beaten whites, bake in a hot greased griddle. Serve with brown sugar sirup.

Brown Sugar Sirup

2 c. light brown sugar	½ c. water

Stir sugar and water over fire until the mixture begins to boil; cook until it forms a sirup (about 5 minutes). A little lemon juice and melted butter may be added if liked.

Air Expansion

Popovers, omelets, cream cakes, sponge cake and angel cake are made light by the expansion of air beaten into the mixture. No leavening agents are used. They require a slow oven. If failures are made, they are usually traced to having too slow an oven or removing from oven before thoroughly done.

Popovers

1 c. flour	2 eggs
1 c. milk	½ t. melted butter
¼ t. salt	

Set muffin pans on stove to heat; grease with lard or butter, using just enough to keep the batter from sticking. Sift the flour and salt together; add the milk gradually and the well-beaten egg. Beat with a Dover Egg Beater 3 minutes or more. Bake in a hot oven 30 to 35 minutes. Unless the popovers are baked until they are hard and crisp they will fall.

Plain Omelet

4 eggs	4 T. hot water
½ t. salt	1 T. butter
Few grains pepper	1½ c. thin white sauce

Separate yolks from whites; beat yolks until thick and lemon-colored; add salt, pepper and hot water. Beat whites until stiff and dry, cutting and folding them into first mixture until they have taken up mixture. Heat omelet pan and butter sides and bottom. Turn in mixture, spread evenly, place on range where it will cook slowly, occasionally turning the pan that omelet may brown evenly. When well "puffed" and delicately browned underneath, place

pan on center grate of oven to finish cooking the top. The omelet is cooke i it is firm to the touch when pressed by the finger. If it clings to the fir like the beaten white of egg it needs longer cooking. Fold and turn on o platter and pour around 1½ cupfuls thin white sauce.

Cream Cakes

½ c. butter	4 eggs
1 c. boiling water	1 c. flour

Put butter and water in a saucepan; as soon as boiling point is reached flour all at once and stir vigorously until smooth. Remove from fire, eggs, one at a time; beat until thoroughly mixed between the addition of eggs. Drop by spoonfuls on a buttered sheet 1½ inches apart, shaping nearly circular as possible, leaving mixture slightly piled in the center. B 50 minutes in a moderate oven. With a sharp knife make a cut in each la enough to admit the cream filling. If cakes are removed from the oven bef they are thoroughly cooked they will fall.

Cream Filling

1 scant c. sugar	⅛ t. salt
⅓ c. flour	2 eggs
2 c. scalded milk	½ t. lemon extract

Mix sugar, flour and salt, and add gradually to scalded milk. Cook i double boiler, stirring constantly until the mixture thickens. Cook about minutes before the addition of the beaten eggs. Cook for a few minu longer, then flavor cream. When adding eggs, add gradually, stirring c stantly to prevent curdling.

Angel Cake

8 whites of eggs	1 c. powdered sugar
1 t. cream tartar	¾ c. flour
¼ t. salt	¾ t. flavoring

Beat whites on large platter; add salt and cream of tartar; whip in sug sift flour into lower end of platter and fold into mixture; add flavoring. C in a new pan or in a pan lined with ungreased paper. Bake in a slow over

BREAD

Hard spring wheat makes the best bread flour, owing to the fact t it contains a larger amount of gluten. Soft winter wheat is best pastry, as it is rich in starch. Yeast is a mass of tiny, colorless plan each a single, rounded cell consisting of a sac filled with watery matt Under a microscope new cells may be seen budding out of old ones.

The home of the yeast is on the skins of grapes and on parts of so other plants.

Yeast requires the same conditions as other plants for its growth, w the exception of sunlight. Just as other plants may be forced to gr unnaturally fast by warmth, so the growth of the yeast plant may hastened by keeping it in a warm place.

Yeast for the manufacture of yeast cake is obtained from breweries l distilleries. Yeast plants are in the scum on top of fermenting uors. It is washed to free it from impurities, mixed with starch the consistency of paste, pressed into cakes and wrapped in tinfoil market. A fresh cake is essential for good results.

By its growth in the dough it brings about changes by which a gas oduced called carbon dioxide. This gas fills the dough with bubbles; se are expanded by the heat of the oven and produce the light, porous f.

There are three kinds of yeast—the liquid, the compressed, and dry. e compressed is the most convenient form, as it is easily obtained l is in such a condition that the growth is rapid. The dry yeast st be allowed to grow in a "sponge" before it is ready to use in gh.

f a small quantity of yeast is used it is best to set the bread in form a "sponge."

A "sponge" should be used with dry yeast to hasten the process of wth.

When eggs are used, the bread is first allowed to rise as a "sponge." he yeast plant is killed at 212° F.; life is suspended, but not entirely troyed at 32°F. The temperature best suited for its growth is from ' to 87° F.

Bread is baked: (1) To kill ferment; (2) to make soluble the rch; (3) to drive off alcohol and carbon dioxide, and (4) to form rown crust of pleasant flavor. Bread should be baked in a hot oven. the oven be too hot the crust will brown quickly before the heat has ched the center, and prevent further rising; the loaf should continue ng for first fifteen minutes of baking, when it should begin to brown, l continue browning for the next twenty minutes. The last fifteen utes it should finish baking, when the heat may be reduced. When ad is done, it will not cling to sides of pan, and may be easily re- ved. Biscuits require more heat than loaf bread, should continue ng the first five minutes, and begin to brown in eight minutes. Ex- ience is the best guide for testing the temperature of the oven. Hard eat should be made into a soft dough and soft wheat into a stiff gh.

Parker House Rolls

2 c. scalded milk
3 T. butter
2 T. sugar
Flour
1 t. salt
1 yeast cake dissolved in ¼ c. lukewarm water

dd butter, sugar and salt to milk; when lukewarm, add dissolved yeast e and 3 cups flour. Beat thoroughly, cover and let rise until light; cut n and add enough flour to knead (about 2½ cups). Let rise again, toss floured board, knead, pat and roll one-third inch in thickness; shape with uit-cutter, first dipped in flour, and with it make a crease through the dle of each piece. Brush over one-half of each piece with melted butter,

fold and press edges together. Place in greased pan, one inch apart, cov let rise, and bake in hot oven 12 or 15 minutes. As rolls rise they will p slightly, and if hastened in rising are apt to lose their shape.

Salad or Dinner Rolls

Use same ingredients as for Parker House Rolls, allowing one-fourth c butter. Shape in small biscuits, place in rows on floured board, cover wi cloth and pan, and let rise until light and well puffed. Flour handle of wood spoon and make a deep crease in middle of each biscuit; take up and pr edges together; place closely in buttered pan, cover, let rise and bake 12 to minutes in hot oven. From this same mixture, crescents, braids, twists, b knots, clover leaves, and other fancy shapes may be made.

DEEP FAT FRYING

Frying is a process of cooking in enough hot fat to float or cover article to be cooked.

Utensils.—A deep, heavy iron kettle, frying basket, and pan cove with soft paper.

Fats Used.—Lard or lard substitutes, such as cottolene, cocoanut Wesson's cooking oil, beef drippings, cotton-seed oil, etc.

Temperature of Fat.—(*a*) Cooked articles: Fat should brown a cu of bread in 40 counts. (*b*) Uncooked articles: Fat should brown bro in 60 counts.

Precautions.—(1) Do not cook too many articles at a time; (2) fat reheat after addition of each set; (3) Do not have kettle too full fat; (4) Take care not to burn the fat; (5) Have all articles for fry as dry as possible.

Order for Frying.—(1) Potatoes and uncooked articles, as dou nuts, fritters, etc.; (2) Croquettes or breaded meats, like veal cutl etc.; (3) Fish.

Care of Fat After Using.—The fat used for frying can be used peatedly if proper care is taken. When fat has become cool but solid, strain through a cheese-cloth and set away in a covered dish cool. When heating it before a second using, add several slices of r potato and let them heat with the fat. When brown, remove; they absorb the odors in this way.

Doughnuts

Yolk of 4 eggs or 2 whole eggs	4 t. baking powder
1 c. sugar	½ t. salt
½ c. milk	¼ t. each cinnamon and nutmeg
½ c. water	Flour to make a dough just stiff
3 T. melted butter	enough to handle

To the beaten eggs add sugar and butter. Beat well, add water and m then the baking powder, salt and spices sifted with two cups flour. Add m flour until the right consistency is reached. Put one-third the mixture o floured board; knead lightly; roll to one-third inch in thickness. Cut wit

oughnut cutter and fry in fat hot enough to brown a piece of bread in 60 unts. Avoid turning more than once. Drain well. When they are slightly ol put them in a paper bag, one at a time, with 3 or 4 tablespoonfuls pow- ered sugar and shake gently to coat them with sugar.

Chicken Croquettes

1 c. cold minced chicken
½ t. salt
¼ t. celery salt
1 t. parsley
1 t. pepper
½ c. white sauce
1 t. lemon juice

Mix the ingredients, adding the white sauce a little at a time until a stiff ixture is obtained. Shape into croquettes; roll in crumbs, then in egg, and to crumbs again. Fry in fat. Croquettes may be baked instead of fried. ther meats, such as veal, fish, brains, and sweetbreads, may be substituted r the chicken.

Fritters

1 c. flour
¼ t. salt
½ c. sweet milk
2 eggs
1 T. butter
1 t. baking powder
1 T. sugar

Mix and sift dry ingredients. Beat the yolks and add to them the milk. ir the liquid into the dry ingredients and drop the melted butter in. Fold in e beaten whites. Slices of any fruits may be stirred into this batter and ed by spoonfuls immediately in deep fat. Serve with lemon sauce. Oysters ay be used if sugar is omitted.

Clam Fritters

1 pt. clams
2 eggs
⅓ c. milk
1⅓ c. flour
2 t. baking powder
Salt
Pepper

Clean clams, drain from their liquor and chop. Beat eggs until light, add lk and flour mixed and sifted with baking powder, then add chopped clams d season highly with salt and pepper. Drop by spoonfuls and fry in deep . Drain on brown paper and serve at once on folded napkin.

Rice Croquettes with Jelly

½ c. rice
½ c. boiling water
1 c. scalded milk
½ t. salt
Yolks of 2 eggs
1 T. butter

Wash rice, add to water with salt, and steam until rice has absorbed water. en add milk, stir lightly with fork; cover and steam until rice is soft. move from fire, add egg yolks and butter; spread on shallow plate and cool. ape in balls, roll in crumbs, then shape in nests. Dip again in egg and umbs, fry in deep fat and drain. Arrange on folded napkin and garnish h parsley or serve around game.

Cutlets of Sweetbreads

2 pairs par-boiled sweetbreads
2 t. lemon juice
½ t. salt
⅛ t. pepper
Slight grating nutmeg
1 egg
1 t. finely chopped parsley
1 c. thick white sauce

Chop the sweetbreads, of which there should be two cups; if not enou add chopped mushrooms to make two cups, then season. Add egg, slight beaten, to sauce and combine mixtures. Cool, shape, crumb, and fry. Ma a cut in a small end of each cutlet and insert in each a piece of cold boil macaroni 1½ inches long.

Swedish Timbales

¾ c. flour	½ c. milk
½ t. salt	1 egg
1 t. sugar	1 T. olive oil

Mix dry ingredients, add milk gradually and beaten egg; then add olive Shape, using a hot timbale iron; fry in deep fat until crisp and brown; ta from iron and invert on brown paper to drain.

Fill cases with creamed oysters, chicken, sweetbreads, or chicken and swe breads in combination with mushrooms.

Banana Fritters

3 bananas	¼ t. salt
1 c. flour	¼ c. milk
2 t. baking powder	1 egg
1 T. powdered sugar	1 T. lemon juice

Mix and sift dry ingredients. Beat egg until light, add milk and combi mixtures; add lemon juice drop by drop and banana fruit forced through sieve. Drop by spoonfuls; fry in deep fat and drain. Serve with a sauce.

FISH

Fried Fish

Clean fish and wipe as dry as possible. Sprinkle with salt, dip in flour crumbs, eggs and crumbs, and fry in deep fat.

Sauce Tartare

½ t. salt	Few grains of cayenne
½ t. mustard	Yolks of 2 eggs
½ c. olive oil	½ shallot, finely chopped
¼ t. powdered tarragon	½ tbsp. olives, parsley, pickles,
1½ tbsp. vinegar	capers, each finely chopped

Mix mustard, salt and cayenne; add yolks of eggs and stir until thorough mixed, setting bowl in pan of ice water. Add oil, at first drop by drop, st ring with a wooden spoon or wire whisk. As mixture thickens, dilute w vinegar, when oil may be added more rapidly. Keep in cool place until rea to serve, then add remaining ingredients.

Planked Shad

Clean and split a three-pound shad. Put skin side down on an oak pla one inch thick and a little longer and wider than the fish; sprinkle with s and pepper and brush over with melted butter. Bake 25 minutes in hot ov Remove from oven, spread with butter and garnish with parsley and lem The fish should be sent to the table on plank. Planked shad is well cooked a gas range, having the flame over the fish.

Serve with white sauce to which has been added two hard cooked eggs finely opped and parsley.

To Broil Fish

Bluefish and mackerel are split down the back and broiled whole, removing ad and tail, or not, as desired. Smelts and other small fish are broiled ole without splitting. Clean and wipe as dry as possible; sprinkle with t and pepper and place in well-greased wire broiler. Fish should be first oiled on flesh side, then turned and broiled on skin side just long enough to ke skin brown and crisp. To remove from broiler, loosen fish on one side, n and loosen on the other side; otherwise flesh will cling to broiler. Slip m broiler to hot platter.

Baked Fish

Clean and wipe the fish, remove the backbone by running the knife down the ck, keeping it close to the bone. Lay one side of the fish on the pan in ich two one-inch strips of cloth have been placed to help lift the fish. Lay the stuffing, pressing firmly into place, cover with the other half and fasten th skewers. Sprinkle with salt, pepper and flour and dot with bits of but-. Put a little hot water into the pan and bake until brown and the flesh kes. Garnish with parsley and slices of lemon.

Fish Stuffing

½ c. cracker crumbs
½ c. bread crumbs
¼ c. hot water
1 t. chopped parsley
2 T. butter
¼ t. salt
1 t. chopped pickle
Few drops onion juice
⅛ t. pepper
Mix all together

Moulded Fish

Remove skin and bones from a thick piece of boiled fish. Chop and force rough sieve (there should be about 1⅓ cups). Pound in mortar, adding adually whites of 2 eggs. Add 1¼ cups heavy cream, and salt, pepper and yenne to taste. Turn into a buttered mould, cover with buttered paper, set a pan of hot water and bake until fish is firm. Turn on serving dish and rve with Normandy Sauce.

Normandy Sauce

Cook skin and bones of fish with 3 slices carrot, 1 slice onion, sprig of pars-y, bit of bay leaf, ¼ teaspoonful pepper corns and 2 cupfuls cold water 30 inutes and strain. There should be one cup. Melt 2 tablespoons butter and tablespoons flour, add fish stock, ⅓ cup heavy cream and yolks 2 eggs. ason with salt, pepper and cayenne.

Soft-shell Crabs

Clean crabs, sprinkle with salt and pepper, dip in crumbs, egg, and again in umbs; fry in deep fat and drain. Being light, they will rise to top of fat id should be turned while frying. Soft-shell crabs are usually fried. Serve ith sauce tartare.

Frogs' Hind Legs

Trim and clean. Sprinkle with salt and pepper, dip in crumbs, egg, and umbs again; fry in deep fat and drain.

Little Neck Clams

Little neck clams are served raw on the half shell in same manner as r
oysters.

OYSTERS

Oysters are Mollusks, having two shells. They contain a tough mus
by which they are fastened to the shell. The body is made up larg
of liver, which contains glycogen (animal starch), and is partly s
rounded by fluted layers which are the gills.

Oysters are five years old before suitable for eating.

They contain about the same amount of nutriment as an equal amou
of milk.

Oysters with Bacon

Clean oysters, wrap a thin slice of bacon around each, and fasten witl
small wooden skewer. Put in a broiler, place broiler over dripping pan, a
bake in a hot oven until bacon is crisp and brown, turning broiler once dur
the cooking; drain on brown paper.

Oyster Cocktail

8 small raw oysters	¼ t. celery salt
2 drops tabasco	1 tbsp. vinegar or lemon juice
½ t. Worchestershire sauce	Grated horseradish

Mix ingredients, chill thoroughly and serve in cocktail glasses or ca
made from green peppers placed on a bed of crushed ice.

POULTRY

Poultry is the flesh of domestic birds. Game includes wild birds a
some animals. The light meat in poultry is found on the breast a
wings, where the muscles are little used. In the case of game, since
wing and breast muscles are much used, the darker and juicier meat
found there. Poultry and game are easily digested.

Roast Chicken

Dress and wash fowl, stuff and rub with salt and flour. Tie into sha
Place in pan and add a little hot water. Cook in a hot oven and when
flour begins to brown baste with hot water. Reduce the heat of the oven
baste every 10 minutes. Cook until the breast meat is tender.

Fried Chicken

Clean and cut in pieces for serving. Sprinkle with salt and pepper
coat thickly with flour. Cook in deep fat until a golden brown.

Chicken Stew

)ress and cut up a fowl. Put in a stew pan, cover with boiling water and ·k slowly until tender, adding one-half tablespoonful salt and one-eighth tea- ·onful pepper when fowl is half cooked. Thicken with one-third cup flour ·uted with cold water. Serve with pastry. Butter may be added to give a ·her flavor.

BEEF

Good beef is fine-grained, of a bright red color, firm to the touch, d is well marbled with yellowish fat. The muscles which are the least ed are the most tender, but have the least flavor and nourishment. ıe beef when slaughtered is divided into sides, and the sides into the ıd and fore-quarter. The principal cuts of the hind-quarter are the n, rump and round. The small end of the loin is divided into steaks lled porterhouse. The large end of the loin is sold as sirloin steaks. ıe rump is used for steaks and stewing. The skin is used for soups. ıe fore-quarter contains the ribs, which are used for roasts. The first prime ribs are the best; those near the shoulder, called the chuck ɔs, are cheaper. The brisket and flank are used for corning and ewing. The neck is used for stewing. The shoulder is used for steaks d stewing.

In veal, lamb and pork, the ribs and loin are sliced and used as ·ops, or are left whole and used for roasting.

As soon as meat is brought into the house, remove the paper, wipe ith a damp cloth, cut out any parts discolored by a meat hook, put ı an earthen dish and set in a cool place.

Broiled Steak

Trim steak, heat pan, rub with piece of fat. Lay in steak with fat towards ındle, cook over coals, turn every 10 counts. Allow 8 minutes for steak one ıch thick. This may be broiled in a pan.

Rolled Flank Steak

3 lbs. flank steak	1 onion
2 strips salt pork	1 stalk celery

Stuffing

2 c. bread crumbs	2 t. salt
1 t. chopped parsley	⅛ t. pepper
1 t. chopped onion	2 T. melted butter

Wipe meat and remove all membrane. Make stuffing by moistening bread rumbs with hot water. Add seasoning and butter, spread over the meat and oll up. Tie or skewer it and sear in a hot pan. Place in a heavy cooking essel, put in onion and 1 pint boiling water. Cover closely, bring to the boil- ıg point, and cook in fireless cooker. Potatoes, carrots or turnips may be dded one hour before it is done.

Hamburg Steak

1 lb. lean beef	3 crackers
2 rings onion	⅛ t. pepper
1 egg	1 t. salt
1 T. lard	2 T. flour

Chop meat, removing all stringy pieces. Roll crackers and mix with eg seasoning and meat. Make into balls, using 2 tablespoons for each ball. Du with flour and flatten. Heat lard in pan and brown balls quickly over a h fire. This may be made into a loaf and baked. Serve with tomato sauce.

Boiled Ham

1 ham	2 bay leaves
1 doz. pepper corns	1 doz. cloves

Wash well with a brush in cold water and soak overnight in water in whi a little soda or borax has been dissolved. Wash ham in warm water, but not let it soak in water. Put ham into the boiler, cover with hot water, ad seasoning and simmer. Allow 20 minutes to the pound. Let ham cool in i own liquor, skin and serve. It may be boiled 2 hours, then covered with pas of flour, brown sugar and water and baked one hour.

Boiled Tongue

Wash tongue and trim away rough end at base. Put on in boiling wat and simmer until tender. Add salt and any seasoning desired to the wate When cooked, remove skin and press until cold. This is excellent when pr pared in the fireless cooker.

Beef Stew

2 lbs. beef	2 t. salt
1 onion	½ ssp. pepper
½ c. carrot	1 c. turnip
6 small potatoes	Water to cover

Wipe meat and cut in 2-inch pieces. Put the meat with onion into a kettl and cover with boiling water. Add the salt and pepper and set back to sim mer slowly. Cook until meat is tender—about 2½ hours. Boil the vegetable in a separate saucepan, starting about one-half hour before stew is to b served. Just before serving, remove meat and vegetable stock and thicke with flour mixed with cold water. Cook 5 minutes and pour over meat an vegetables.

Pan-broiled Chops

Wipe chops clean and put into a hot frying pan without fat; turn as soon a seared; brown nicely on both sides; put on hot platter; season with salt, pe per and butter. Beefsteak may be cooked in the same way. Never put f into the frying pan for beef or mutton.

Beefsteak with Oyster Blanket

Wipe a sirloin steak, cut 1½ inches thick, broil 5 minutes, and remove platter. Spread with butter and sprinkle with salt and pepper. Clean o pint oysters, cover steak with same, sprinkle oysters with salt and pepper an dot over with butter. Place on grate in hot oven and cook until oysters a plump.

Roast Beef

4 lbs. rib roast
2 t. salt
1 t. pepper
Flour to dredge

Wipe roast with damp cloth, dry, weigh and dredge with flour. Set on a ck in a roasting pan, and put salt and pepper with one cup of hot water in n. Brown on top rack of stove and then remove to lower part of oven. ıste with drippings, cover, and cook, allowing 8 to 10 minutes to the pound. ıste frequently.

Roast Mutton

A leg of mutton is roasted like beef. The bone may be removed and space led with stuffing.

FRUITS

Fruits are valuable for their sugar, acids, and salts, and are cooling, freshing, and stimulating. They act as a tonic, and assist in purifying the blood. Bananas, dates, figs, prunes, and grapes, owing to their rge amount of sugar, are the most nutritious. Melons, oranges, nons, and grapes contain the largest amount of water. Apples, nons, and oranges are valuable for their potash salts, and oranges ıd lemons especially valuable for their citric acid. Plums, peaches, ›ricots, and raspberries have less sugar than other fruits; apples, sweet ıerries, grapes and pears contain the largest amount. Fruits should ways appear on the breakfast table.

Baked Apples

Wipe and pare apples, put in baking dish and fill cavities with sugar and ›ice. Use ½ cupful sugar, ¼ teaspoonful cinnamon, few gratings nutmeg ıd a few drops lemon juice. Cover bottom of dish with boiling water and .ke in hot oven until soft. Baste often with sirup in dish. Serve either hot · cold with whipped cream.

Bananas with Cream

Slice bananas, sprinkle with powdered sugar. Serve with cream.

Sliced Oranges

Remove skins, slice thinly, place on bed of crushed ice and serve with pow- ered sugar.

SALADS

Salads are valued for the mineral salts contained in the fresh, green, ncooked vegetables and fruits, and for oil contained in dressing, as ell as for mild acid. They are refreshing and stimulating to the ›petite.

Have everything cold and crisp. The ingredients should be carefl proportioned for the dressing and should be well blended so that it i be neither oily nor acid. It is necessary to have the whole well mi

French Dressing

3 T. olive oil
½ t. salt
1½ t. vinegar
⅛ t. pepper
½ t. sugar

Put the oil into a bowl. Stir in the salt, pepper and sugar. Stir in vinegar, a few drops at a time. Serve on lettuce. Lemon juice may be for the vinegar. Onion juice and chopped parsley may be added when dressing is for vegetables.

Boiled Dressing

2 eggs
2 T. sugar
¼ t. pepper
2 T. butter
1 T. corn starch
1 T. mustard

Mix the butter, mustard, pepper, salt and sugar in the vinegar. Plac the fire to heat. Beat the eggs in a double boiler with the corn starch. W the vinegar is hot, pour it into the eggs, stirring until the mixture thick Cool. One-fourth cup whipped cream folded in just before serving adds to richness of the dressing.

Mayonnaise

1 t. salt
⅛ t. cayenne pepper
1 T. vinegar
2 c. salad oil
1 T. lemon juice
2 egg yolks

Have all the ingredients cold. Set the bowl containing the egg yolks in bowl of crushed ice; add the salt and pepper; beat well. Add 2 tablespoon of oil, a few drops at a time, stirring constantly. Now alternate oil with egar, putting in larger quantities each time. If the mixture curdles, add another egg yolk.

Waldorf Salad

1 c. tart apples, diced
1 c. tender celery, diced
½ c. chopped nuts
Lettuce leaves

Toss apples, celery and nuts together lightly, dress with mayonnaise serve on lettuce leaves or in the apple shells.

Asparagus Salad

1 c. cold asparagus tips
Lettuce leaves

Wash lettuce carefully, arrange tips on the lettuce, dress with mayonn Serve immediately.

Asparagus may be made into little bundles held by a ring of green pe and served on lettuce.

Potato Salad

2 c. cold potatoes
1 c. celery
2 eggs, hard cooked
1 t. salt
⅛ t. cayenne
2 T. red bell pepper
½ onion

Cut potatoes and celery into dice, chop the onion, eggs and pepper. with mayonnaise or boiled dressing and serve on lettuce.

Grape Fruit, Ginger and Pineapple Salad

3 grape fruits	1 pineapple
¼ lb. Malaga grapes	¼ lb. crystallized ginger

Prepare fruit and cover with French dressing or mayonnaise with a little ipped cream added.

Lettuce and Tomato Salad

Arrange heart lettuce and slices of tomato on salad dish. Cover with ished ice. Serve with mayonnaise.

Bananas and Peanut Salad

Arrange sliced bananas on lettuce leaf on salad plate. Pour over this one blespoonful crushed peanuts. Mask with mayonnaise.

Stuffed Tomatoes

Select medium sized tomatoes of uniform size. Remove skins by immersing boiling water one minute. Remove inside of tomato carefully. Mix with a tle cold, finely chopped meat, season highly, refill tomatoes, cover with ayonnaise and serve very cold.

Left-over vegetables and fruits may be combined in many attractive ways d served with a dressing, making a delicious salad.

INVALID COOKERY

Dietaries are frequently classified as follows:

1. *Liquid Diet,* including—broths, meat extracts, milk, gruel, egg nog, verages, etc.
2. *Soft Diet,* including—cereals, cream soups, soft-cooked eggs, milk d cream toast, custards, junket, jellies, etc.
3. *Light Diet, including*—eggs, sweetbreads, chicken, squabs, quail, nderloin steak, scraped beef, bacon, baked potatoes, asparagus, peas, rnstarch and gelatine desserts, sponge cake, baked apples, oranges and ner fresh fruits, excepting berries having small seeds, which may prove ritating to the digestive tract.

Milk is of great value in invalid feeding, and agrees with most people. Vo quarts per day must be allowed if no other nourishment is given.

Wine Whey

¼ c. milk	3 T. sherry

Scald milk, add wine, and let stand 5 minutes. Strain through cheesecloth.

Milk Punch

½ T. sugar	1 T. brandy or other flavoring
⅔ c. cold milk	Few grains salt

Put ingredients in a clean jar and shake until frothy. Strain in glass jar serving.

Egg Nog

1 egg
¾ t. sugar
Few grains salt
¼ t. vanilla or
½ T. brandy
⅔ c. cold milk

Beat egg yolk, add sugar, salt and flavoring, add gradually the milk; sti and add white of egg beaten stiff. Serve in a glass.

Oatmeal Gruel

¼ c. rolled oats
1½ c. water (boiling)
½ t. salt
Milk or cream

Add oats mixed with salt to boiling water; let boil 2 minutes, then over boiling water 2 hours. Strain and add milk or cream. Serve hot.

Orangeade

Juice of 1 orange 2 t. sugar ½ c. crushed ice

Mix orange juice and sugar. Strain in cracked ice.

Beef Broth

1 lb. lean beef 1 qt. water

Cut meat in ½-inch cubes to expose a large surface to water. Put in gra saucepan, add the water and let stand 45 minutes. Heat gradually to simi ing point and cook at that temperature for 2 hours. Remove from fire, through a strainer sufficiently coarse to remove all pieces of beef, but to a the flakes of coagulated albumen to pass through. When cold, remove all When ready for use, reheat, season with salt and serve. Always stir be pouring from dish as coagulated albumen settles, leaving clear liquid ab As the amount of liquid becomes diminished in cooking, more water ma added.

Chicken Broth

3 lbs. chicken 3 pts. water

Clean chicken, disjoint, gash meat and crack the bones. Cover with water, allowing it to stand 45 minutes, and cook at simmering point f hours.

Egg in Nest

1 egg 1 slice toast Few grains salt

Separate white from yolk; beat with silver fork; add salt and pile on ci lar piece of toast which has been dipped in boiling salted water. Make a pression in center of white and drop in yolk. Season and bake in a mode oven until delicately browned.

Scraped Beef Balls

Select a piece of round steak. Scrape with silver spoon on both side steak till all pulp is removed, leaving connective tissue. Form in balls th fourth inches in diameter. Heat a frying pan, rub quickly with a piec beef fat, add balls and shake till balls are slightly brown. Season with pepper and butter. Arrange on slice of toast and serve hot.

This is excellent when formed into thin cakes and boiled 2 or 3 minute a wire broiler over hot coals.

CREDITS

To the following sources, credit is due for valuable help in the preparation of this bulletin.—*Cornelia C. Morris.*

nciples of Nutrition and Nutritive Value of Food, *Farmers' Bulletin No. 142*
k, the Indispensable Food for Children.....*U. S. Dept. of Labor, No. 35*
tage Cheese Dishes.....*Circular No. 109*
ndbook in Domestic Science.....*Nashville Grammar Schools*
Brief Course in Domestic Science.....*Catharine A. Mulligan*
Business of Being a Housewife.....*Jean Prescott Adams*
ndbook of Food and Diet,
Margaret E. Dodd, American School of Home Economics, Chicago
ston Cooking School Cook Book.....*Fannie Merritt Farmer, Boston, Mass.*
Newer Knowledge of Nutrition.....*McCollum*
nual of Homemaking.....*Van Rensselaer, Rose, Cannon*

BIBLIOGRAPHY

m Home Conveniences.....*Farmers' Bulletin No. 927*
dern Conveniences.....*Farmers' Bulletin No. 270*
-traps and Their Operation.....*Farmers' Bulletin No. 734*
me-made Fireless Cookers.....*Farmers' Bulletin No. 771*
nciples of Nutrition and Nutritive Value of Food, *Farmers' Bulletin No. 142*
duction of Clean Milk.....*Farmers' Bulletin No. 602*
d for Young Children.....*Farmers' Bulletin No. 717*
ling Milk on the Farm.....*Farmers' Bulletin No. 976*
k, the Indispensable Food for Children.....*U. S. Dept. of Labor, No. 35*
tage Cheese Dishes.....*Circular No. 109*
ndbook in Domestic Science.....*Nashville Grammar Schools*
Brief Course in Domestic Science.....*Catharine A. Mulligan*
Business of Being a Housewife.....*Jean Prescott Adams*
ndbook of Food and Diet,
Margaret E. Dodd, American School of Home Economics, Chicago
ston Cooking School Cook Book.....*Fannie Merritt Farmer, Boston*
Newer Knowledge of Nutrition.....*McCollum*
nual of Homemaking.....*Van Rensselaer, Rose, Cannon*